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Canadian Forestry Service-Maritimes

TECHNICAL NOTE

FOREST INSECTS AND DISEASES IN FUNDY NATIONAL PARK IN 1986

Personnel of the Forest Insect and Disease Survey regularly survey national parks for forest insect and disease conditions. Some of these conditions encountered in Fundy National Park in 1986 are discussed briefly below.

SPRUCE BUDWORM is certainly the best known and most destructive forest insect in New Brunswick. It has made its presence known in Fundy National Park as evidenced by the large areas of dead spruce and fir trees. Populations have been declining sharply since the early 1980s. Catches of spruce budworm moths in a light trap, operated with the co-operation of Parks personnel near the Headquarters area, show this downward trend. In 1982 there were 36 818 moths caught, followed by 6106, 4913, 150 and only 192 in 1986. Correspondingly, defoliation also decreased and in 1986 only light defoliation was observed in the Park. Fall surveys indicate that in 1987 populations will be similar to those found in 1986 and only light to moderate defoliation is expected.

NEEDLE CAST OF SPRUCE is a disease which affects the foliage. The needles turn red or brown and fall prematurely. The disease was present on the Maple Grove Road, where 77% of the needles were infected on 80% of the young red spruce trees in an area of about two hectares.

LATE SPRING FROST causes new shoots on young conifers to droop, turn red and eventually die. Damage was common on young balsam fir along Forty Five Mile Road, where an average of 40% of the new shoots were killed on about 60% of the trees.

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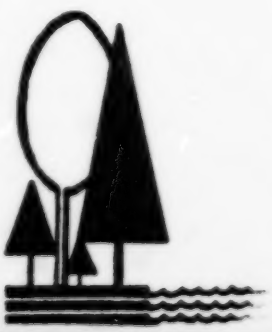

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DETERIORATION OF WHITE BIRCH, characterized by early leaf browning and premature leaf fall, has occurred along the Bay of Fundy Coast since 1979. One of a series of observation plots established in 1982 to study this condition is in Fundy National Park. Leaf browning in 1986 was less pronounced than in previous years and only light foliage discoloration was recorded on the plot in the Park. Although the trees appeared healthy in the Park, their overall condition has declined over the years due to the repeated early browning and premature leaf fall. While in 1982 all trees on this plot were healthy by 1986 6% of the trees died, 34% had branch dieback, 42% had twig dieback and only 18% were still healthy. The cause of the problem is still under investigation.

SPRUCE BEETLE usually attacks trees stressed by factors such as age or defoliation by insects. When populations are high, healthy trees may also be attacked. Attack by this insect is recognizable by pitch tubes on stems and red boring dust in cracks on the stem and the base of the trees. The insect was first found in the Park in 1982 along Shepody Road and Laverty Road, in the upper northeast corner of the Park. In 1986 new trees were successfully attacked in these areas.

WHITEMARKED TUSSOCK MOTH, a colorful, hairy caterpillar with a red head, and grey and red spots on its back, feeds on a wide variety of deciduous and coniferous trees. At high population levels, it causes considerable damage and is also a nuisance as at high populations larvae drop from trees on picnic tables, tents, and campers. In 1986 populations increased noticeably throughout south-eastern New Brunswick, including Albert County. Some defoliation may occur in Fundy National Park in 1987.

SIROCOCCUS SHOOT BLIGHT causes drooping and reddening of new needles and shoots of pine. After repeated attacks shoot, branch, and tree mortality occurs. The disease is present and very noticeable in Fundy National Park along Route 114 and at Park Headquarters, on red pine.

PORCUPINES are common in the Park and caused noticeable damage to and mortality of young balsam fir and white spruce trees, particularly near the Park entrance on Route 114 and from Park Headquarters to Point Wolfe Campground. Porcupine damage is indicated by bright red trees and yellowish-white stems where the bark has been eaten off. Girdling of the stem kills the tree.

GYPSY MOTH is a major defoliator of forest and shade trees in the northeastern United States. In New Brunswick the insect is found in Charlotte and southeastern York counties and at Fredericton. In Fundy National Park the adult-moth pheromone trapping program was continued in 1986 with assistance from the Park staff. No moths were caught in any of the 18 traps and no other life stages of the insect were found in the Park. Visitors are requested to report any suspect gypsy moth to Park personnel.

-O. A. Meikle
Forest Insect and Disease Survey

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